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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/804,195 | 03/19/2004 | Hirotooshi Terada | 046124-5281 | 6516 |
| 55694 | 7590 | 03/21/2006 | EXAMINER | |
| DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209 | | | PRITCHETT, JOSHUA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2872 | |

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,195

Applicant(s)

TERADA ET AL.

Examiner

Joshua L. Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-9 and 17-19 is/are allowed.
- 6) ☒ Claim(s) 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to Amendment filed February 27, 2006. Claims 17-19 have been added as requested by the applicant. Applicant is further advised that the claim status indicators for claims 1-3 should read be withdrawn, not original, because the claims have been withdrawn from prosecution pursuant to Election filed October 5, 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichimura (US 2001/0021145).

Regarding claim 10, Ichimura discloses a position adjustment step of acquiring an image containing reflected light from a solid immersion lens (3) through an optical system to which light from a sample is incident (Fig. 6), and adjusting the position of the solid immersion lens relative to the optical system, with reference to the image (para. 0028) and an image acquisition step of acquiring an observation image of the sample enlarged by the solid immersion lens through the solid immersion lens and the optical system (Figs. 4 and 6).

Regarding claim 11, Ichimura discloses the center of gravity of a reflected light image is positioned on an optical axis of the optical system with reference to the image containing the reflected light from the solid immersion lens (Fig. 6).

Regarding claim 12, Ichimura discloses a distance adjustment step of adjusting a distance between the optical system and the sample (Fig. 4; slid motor 155).

Regarding claim 13, Ichimura discloses the solid immersion lens has a focal point at the center of the sphere (Fig. 1).

Regarding claims 14 and 15, Ichimura discloses the solid immersion lens has a radius, R , and a refractive index, n , has a focal point located at R/n below the center of the sphere (Fig. 1).

Regarding claim 16, Ichimura discloses the sample is a semiconductor device (51) and the solid immersion lens is placed in close contact with a surface of the semiconductor device (Fig. 1).

Allowable Subject Matter

Claims 4-9 and 17-19 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 4, 7 and 17, the prior art fails to teach or suggest inserting a solid immersion lens from a standby position off an optical axis from the sample to the objective lens to an insertion position including the optical axis.

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The prior art teaches solid immersion lenses movable within the optical axis and normal lenses movable into the optical axis. However, the examiner does not think one of ordinary skill in the art would find it obvious to combine these teachings because of the close contact between a solid immersion lens and a sample and the potential damage to the sample associated with moving the solid immersion lens into position.

The remaining claims depend from claims 4, 7 and 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed February 27, 2006 have been fully considered but they are not persuasive.

Applicant argues that the Ichimura reference fails to teach or suggest the image containing reflected light from the solid immersion lens (SIL) is acquired through the optical system. Applicant further argues that the SIL cannot be adjusted relative to the optical system because the SIL is integral to the objective lens. The term "optical system" is not limited to an objective lens as suggested by the applicant's argument. Fig. 1 of Ichimura does show the SIL attached to the objective lens; however Fig. 4 shows the SIL independent of the optical pickup (12). The term "optical system" can be interpreted to include the optical pickup of Fig. 4. Fig. 4

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further shows both the sample (51) and the optical pickup are connected to motors capable of moving the sample and optical pickup. Therefore the position of the SIL as observed from the optical pickup during movement would appear to move and satisfy the claimed limitations. The examiner maintains that the broadest reasonable interpretation of the claim limitations reads on the prior art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP *R*


DREW A. DUNN
SUPERVISORY PATENT EXAMINER